



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX LABORATORY
1337 S. 46TH STREET BLDG 201
RICHMOND, CA 94804-4698

MAY 12 2006

MEMORANDUM

SUBJECT: Field Audit Report
Groundwater Monitoring Program, George Air Force Base, CA

FROM: Greg Nagle, Environmental Scientist
EPA Region 9 Laboratory (PMD-2)

A handwritten signature in black ink that appears to read "G. Nagle".

THROUGH: Brenda Bettencourt, Director
EPA Region 9 Laboratory (PMD-2)

A handwritten signature in black ink that appears to read "B. Bettencourt".

TO: James Chang, Remedial Project Manager
Superfund Division (SFD-8-1)

Attached is a field audit report for sampling performed the week of April 10th, 2006. The audit report details observations made during the groundwater sample collection process.

If there are further questions concerning this field-sampling audit, please call Greg Nagle at (510) 412-2334.

ATTACHMENT: Field Audit Report

**George Air Force Base
Basewide Groundwater Monitoring Program
April 2006
Field Audit Report**

Introduction:

On April 10th, 11th, and 12th of 2006, Greg Nagle of the USEPA Region 9 Laboratory Field and Biology (FAB) team performed a field audit of groundwater sampling procedures in support of the George Air Force Base Groundwater Monitoring Program. Mr. Nagle also obtained split samples during the course of the field audit. The EPA FAB team conducted the field audit and split sampling in accordance with the following documents:

Basewide Sampling and Analysis Plan (SAP), George Air Force Base, California HydroGeoLogic 1998.

Final 2003 Annual Sampling and Analysis Plan (SAP) Addendum Basewide Groundwater Monitoring Events, Operable Units 1, 2, and 3 George Air Force Base, California MWH Americas, Inc. July 2003.

Final Split Sampling Plan (SSP) Basewide Groundwater Monitoring Program, George Air Force Base, Victorville, California. (EPA Region 9 Field and Biology Team, April, 2006.)

The FAB team identifies deviations from the project planning documents referenced above as findings in accordance with the following criteria:

1. Procedure not performed as specified in plan.
2. Procedure performed inconsistent with procedure specified in plan.
3. Appropriate procedure performed, procedure not specified in plan.
4. Inappropriate procedure performed.

Audit Participants:

Project Management

Sam Grizzle – Site Manager, Montgomery Watson Harza (MWH)

Field Support Personnel

Cole Munson – Principal Owner/Lead Sampler, M&M Environmental
Marlin Ellis – Sampler, M&M Environmental

EPA Auditors

Greg Nagle – USEPA Region 9 Laboratory
Joe Eidelberg – UESPA Region 9 Quality Assurance Office (QAO)

The EPA auditors observed sampling procedures and obtained split samples at the following locations as specified in the SSP.

<u>Well ID</u>	<u>Parameters</u>	<u>Description</u>
FT-03	VOCs	OU 1/OU 3/FT-19 Upper Aquifer
MW-49	VOCs	OU 2/OU 3 Upper Aquifer
MW-69	VOCs	OU 2/OU 3 Upper Aquifer
NZ-27	VOCs	OU 1 Upper Aquifer
NZ-89	OCPs	OU 3 Upper Aquifer
NZ-107	VOCs, LF Surrogates	OU 1/OU 3 Lower Aquifer - Landfill
WZ-06	VOCs, Nat Att. Par	OU 3/Site OT-51 Upper Aquifer

Notes:

VOCs – Volatile Organic Compounds

LF – Landfill Surrogates (i.e., Chloride, Nitrate, Sulfate)

Nat Att. Par. – Natural Attenuation Parameters (Total Organic Carbon, Alkalinity, Nitrate, Total Dissolved Solids)

OCPs – Organochlorine Pesticides

Procedures

M&M collected all samples using the same portable submersible pump and control box. M&M calibrated field instruments, calculated purge volumes, followed sample collection/preservation protocols, and performed necessary decontamination procedures in between wells as specified in the planning documents. In so doing, M&M was able to collect sample from 3-4 wells per day.

MWH provided M&M with direction, answered questions, and reviewed paperwork during the course of sampling activities to ensure efficiency and adherence to plan specifications. MWH packed the coolers, filled out air bills, and delivered samples for overnight delivery. The laboratory received all samples within 24 hours of collection, at 4° C without incident.

Photographs, field logs, and chain-of-custody information gathered during the course of audit activities are presented as Exhibit A, B, and C respectively. Identified below are general and specific audit findings with recommendations for corrective action. None of the findings listed impact sample integrity.

General Findings:

1. The projects' contract laboratory, Applied Physics and Chemistry Labs (APCL), Chino California unexpectedly announced it would no longer accept samples for environmental analysis effective April 1st, 2006. MWH is sending samples to EMAX Laboratories, Torrance, California. MWH reportedly audited EMAX within the last year for other projects. EMAX has experience with the US Air Force analytical requirements and data deliverables.
2. One field team (2 employees') of M&M Environmental unexpectedly quit immediately prior to the field audit. At the time of the field audit, M&M Environmental employed one very experienced sampler and one sampler in training.

Specific Findings:

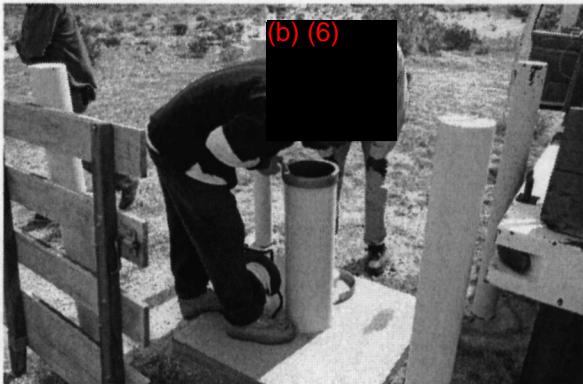
1. Field personnel failed to perform a calibration check for well stabilization parameters (i.e., pH, conductivity, turbidity and dissolved oxygen) at the end of the day on April 10th, 2006 as specified in Section 7.1.1.1 of the Basewide SAP (HydroGeologic, 1998).
2. At MWH's direction, field support personnel did not purge well WZ-06 using the Micro-Purge/Modified Micro-Purge procedure specified in section 6.1.1.1.2 of the Basewide SAP (HydroGeologic, 1998). Instead, MWH directed field personnel to place the pump one foot from the bottom of the well, and pump at a rate of approximately 1.5 gallons per minute (gpm) to purge roughly 75 gallons. When the water level recovered, pumping continued at a rate of approximately 0.25 gpm. Sample collection occurred upon stabilization of field parameters as specified 7.1 of the Basewide SAP Addendum (MWH, 2003). MWH modified this purge technique based on experience and data generated from previous sampling events.
3. The EPA QAO did not provide performance evaluation samples (PES) for all the chemical testing parameters as specified in the SSP. The QAO provides PES through Quality Assurance Testing Support (QATS) Contract Laboratory in Las Vegas, Nevada. EPA and the USAF field personnel submitted PES for volatile organic compounds, nitrate, and alkalinity only. The QATS Laboratory provided a PES for total organic carbon (TOC) as requested, however the container type and chemical preservative was inconsistent with that used by the field and specified in the SSP thus compromising the "double blind" PES submission. QATS provided the PES as directed by EPA.

Recommendations:

1. MWH should perform an audit of EMAX Laboratories and communicate any project specific requirements as soon as possible. Given the recent closing of APCL, EMAX may be experiencing a significant influx of work from other projects.
2. Given the recent turnover in sampling support at M&M Environmental, and to a lesser degree Specific Finding 1, MWH should continue to provide on-site oversight support.
3. MWH should provide justification for the modified purge approach used at WZ-06 and document the procedure in an addendum to the Basewide SAP.
4. The EPA QAO should provide PES as specified in the SSP, or communicate changes with field personnel in advance of field sampling activities.

Exhibit A

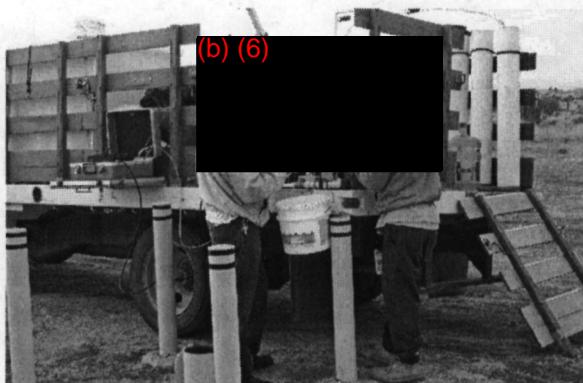
Photographs



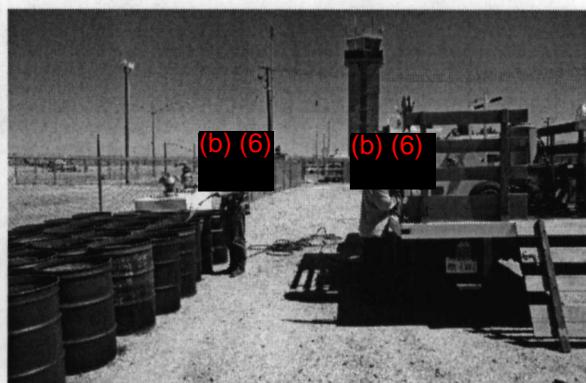
Measuring Water Depth



Setting the Pump



Collecting Sample



Disposing Purge/Decon Water

Exhibit B

Field Logs



MWH

FIELD REPORT

- 0750 Arrived at N2-108
0800 Collected Equip rinsate
0825 Started well purge
0835 Parameters Stable
Collect Sample and start decon
1000 Decon Complete
Report N2-108
1005 Arrived at N2-107
1045 Started well purge at 26 GPM
1115 Collected samples - split Samples with EPA
1120 Started decon
1230 Decon Complete - depart N2-107
1405 Collect Sample Start decon
1500 Decon Complete Departed N2-60 to treatment plant to transfer water

Date:	4/18/86	Job No.:	19510X8
Project:	LIG WWM		
Location:	GATFB		
Weather:	Clear and Cool		
Present at Site:	MUNSON - LILLIS - GRIZZLE GRIGS MAGIE SOF EIDELBERG		
Calibration Fluid Manufacturer and Lot#:	497K Auto Cal Solution EXP 07-05-87		
	Actual	Beginning	Ending
	Value	Calibration	Calibration
Calibration Time:	—	0825	
pH (SU)	4.0	3.98	
EC (ms/cm)	4.49	4.46	
Turbidity (NTU)	0	0	
Dissolved Oxygen (mg/L)	N/A	1.95	

PAGE ____ OF ____

PREPARED BY: _____

1340 Treat Blvd. Ste. 300
Walnut Creek, CA 94597Phone: 925-975-3400
Fax: 925-975-3412



MWH
MONTGOMERY WATSON HARZA

MONITORING WELL SAMPLING LOG

Page 1 of 1

All measurements taken from: Top of Casing Protective Casing Ground Level Sample ID NZ-60-WG

Well Number NZ-60 Static Water Level (ft) 265.92

Date 4/10/06 Depth to Product (ft) N/A

Time Start: 1310 End: 1405 Total Well Depth (ft) 295.0'

Client AFCEE Standing Water Column (ft) 27.08

Project George AFB Basewide Groundwater Monitoring Purging Method Modified Micropurge

Sampler(s) MUNSON - ELL-5 Purging Equipment 2' Grundfos Bedflow

Well Diameter 4" Borehole Diameter 8" Water Level Equipment SOLINST

Screen interval 274.5 - 295.2 274.5 Field Parameter Meter HIRIBA LI-16

Pump Depth (ft) 280.46 ORP Meter HANNA

TIME	AMOUNT PURGED (gallons)	FIELD PARAMETERS MEASURED						
		Purge Rate (gpm)	EC (mS/cm)	pH	Temp (°C)	Turbidity (NTU)	ORP (mv)	DO (mg/L)
1310		Started well purge at 29 GPM						266.73
1315	3.79	.30	.790	7.64	21.6	238	244	6.86
1320	5.38	.26	.802	7.64	22.6	149	247	6.58
1325	6.65	.27	.802	7.63	23.1	106	240	6.37
1330	8.00	.28	.804	7.64	23.3	97	245	6.31
1335	9.39	.28	.807	7.64	23.7	81	244	6.30
1340	10.74	.29	.811	7.64	24.2	50	240	5.82
1345	12.29	.29	.812	7.64	24.0	33	244	5.87
1350	13.46	.22	.814	7.64	23.7	18	242	5.84
1355	14.44	.21	.815	7.64	22.7	11	244	5.87
1400	15.22	.20	.816	7.64	22.5	4	242	5.88
1405		Collected Sample						

FIELD SCREENING ANALYSIS

Parameter	Method/Instrument	Measurement 1	Measurement 2	Average Measurement	Date/Time	Sampler
H ₂ S						
Fe ²⁺						

OBSERVATIONS OF GROUNDWATER SAMPLES

Color:	<input checked="" type="checkbox"/> Clear	Other (describe):
Odor:	<input checked="" type="checkbox"/> None	Low Medium High Fuel-like Other (describe):
Comments:		

12:01 GAFB



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MONITORING WELL SAMPLING LOG

Page 1 of 1

All measurements taken from: Top of Casing Protective Casing Ground Level Sample ID NZ-108-000

Well Number: NZ-108 Static Water Level (ft): 265.70

Well Number ET-1026 Depth to Product (ft) 114

Date 11/10/06 Dep't to Productivity 380.0'
T-1000-1000 380.0'

Time Start: 08:35 End: 08:55 Total Well Depth (ft) 2000 1430

Client: AFCEE **Standing Water Column (I):** 17.10

Project George AFB Basewide Groundwater Monitoring **Purging Method** Modified Nitropurge

Sampler(s) MUNSEN-ELLIS Purging Equipment: 2" Grundfos Radiflow

Well Diameter: 4" Borehole Diameter: 16" Water Level Equipment: So. Finst.

Well Diameter 258.0 - 278.6' Field Parameter Meter HORIZON 4-11

Screen Interval 272.95

Pump Depth (ft) 21.5 ORP Meter 1000 mV

FIELD PARAMETERS MEASURED

FIELD SCREENING ANALYSIS

Parameter	Method/Instrument	Measurement 1	Measurement 2	Average Measurement	Date/Time	Sampler
H ₂ S						
Fe ²⁺						

OBSERVATIONS OF GROUNDWATER SAMPLES

Color: Clear Other (describe):

Odor: None Low Medium High Fuel-like Other (describe):

Comments: _____



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MONITORING WELL SAMPLING LOG

Page 1 of 1

All measurements taken from: Top of Casing Protective Casing Ground Level Sample ID AZ-107-06
Well Number AZ-107 Static Water Level (ft) 256.70
Date 4/16/06 Depth to Product (ft) N/A
Time Start: 1040 End: 1115 Total Well Depth (ft) 280.8
Client: AFCEE Standing Water Column (ft) 23.30
Project: George AFB Basewide Groundwater Monitoring Purging Method: Modified Micropurge
Sampler(s): Makinson - ELLIS Purging Equipment: 2 Grundfos Bedillow
Well Diameter: 4" Borehole Diameter: 8" Water Level Equipment: SOLARST
Screen Interval: 260.1 - 280.8 Field Parameter Meter: HORIBA 61-16
Pump Depth (ft) 268.35 ORP Meter: HANNA

FIELD SCREENING ANALYSIS

Parameter	Method/Instrument	Measurement 1	Measurement 2	Average Measurement	Date/Time	Sampler
H ₂ S						
Fe ²⁺						

OBSERVATIONS OF GROUNDWATER SAMPLES

Color: Clear Other (describe):

Order: None Low Medium High Fuel-like Other (describe):

Comments:



MWH

FIELD REPORT

- 0745 Arrived at
FT-03
- 0810 Collected Equity
Blank
- 0830 Started well
Purge @ .25 GPM
- 0850 Collected Sample
Start decon
- 1005 Decon Complete -
Report FT-03 fm
N-89
- 1015 Arrived at
N-89
- 1040 Started well purge @ .58 GPM
- 1110 Collected Sample - EPA Split
- 1215 Decon Complete - Departed N-89 to treatment
Plant to begin purge water
- 1225 Arrived at treatment plant - began purge
water discharge, 1345 discharge complete
- Departed treat. plant for MW 69
- 1315 Arrived at MW 69
- 1425 Began well purge - MW 69
- 1500 Collect Sample - Start Decon

Date	7/11/06	Job No.	17515ER
Project	Lyon		
Location	GIFP		
Weather	Cloudy - Cool		
Present At Site	MUNSON - ELLIS		
Auto			
Calibration Fluid Manufacturer and Lot#			
AUTOCAL SoluTech EXP 7/5/07			
	Actual Value	Beginning Calibration	Ending Calibration
Calibration Time:	0815	1525	
pH (SU)	4.0	3.99	3.94
EC (ms/cm)	4.49	4.50	4.49
Turbidity (NTU)	0	0	0
Dissolved Oxygen (mg/L)		12.05	9.83

PAGE ____ OF ____

PREPARED BY:

1340 Treat Blvd. Ste. 300
Walnut Creek, CA 94597Phone: 925-975-3400
Fax: 925-975-3412



MWH
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MONITORING WELL SAMPLING LOG

Page 1 of 1

All measurements taken from: <input checked="" type="checkbox"/> Top of Casing <input type="checkbox"/> Protective Casing <input type="checkbox"/> Ground Level		Sample ID: <u>1-1-03-006</u>
Well Number	<u>FT-03</u>	
Date	<u>4/11/06</u>	
Time Start:	<u>0820</u>	End: <u>0850</u>
Client	<u>AFCEE</u>	
Project	<u>George AFB Basewide Groundwater Monitoring</u>	
Sampler(s)	<u>MUNSON - ELLIS</u>	
Well Diameter	<u>4"</u>	Borehole Diameter <u>8"</u>
Screen Interval	<u>133.5' - 168.5'</u>	
Pump Depth (ft)	<u>141.05</u>	
Static Water Level (ft)	<u>113.60</u>	
Depth to Product (ft)	<u>N/A</u>	
Total Well Depth (ft)	<u>168.5</u>	
Standing Water Column (ft)	<u>54.9</u>	
Purging Method	<u>Modified Micropurge</u>	
Purging Equipment	<u>2 Grundfos Redflow</u>	
Water Level Equipment	<u>SOLINST</u>	
Field Parameter Meter	<u>HORIBA U-16</u>	
ORP Meter	<u>HANNA</u>	

FIELD PARAMETERS MEASURED

FIELD SCREENING ANALYSIS

Parameter	Method/Instrument	Measurement 1	Measurement 2	Average Measurement	Date/Time	Sampler
H ₂ S						
Fe ²⁺						

OBSERVATIONS OF GROUNDWATER SAMPLES



MWH
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MONITORING WELL SAMPLING LOG

Page _____ of _____

All measurements taken from: Top of Casing Protective Casing Ground Level Sample ID N2-87-WC
Well Number N2-87 Static Water Level (ft) 121.72
Date 64-11-06 Depth to Product (ft) N/A
Time Start: 1040 End: 110 Total Well Depth (ft) 128.5
Client AFCEE Standing Water Column (ft) 6.78
Project George AFB Basewide Groundwater Monitoring Purging Method Modified Micropurge
Sampler(s) MUNSEN-ELLIS Purging Equipment Grundfos Radiflow
Well Diameter 4" Borehole Diameter 8" Water Level Equipment SOLINST
Screen Interval 108' - 128.5 Field Parameter Meter HORIBA 01-10
Pump Depth (ft) 125.11 ORP Meter HANNA

FIELD PARAMETERS MEASURED

FIELD SCREENING ANALYSIS

Parameter	Method/Instrument	Measurement 1	Measurement 2	Average Measurement	Date/Time	Sampler
H ₂ S						
Fe ²⁺						

OBSERVATIONS OF GROUNDWATER SAMPLES

Color:	<u>Clear</u>	Other (describe):			
Odor:	<u>None</u>	Low	Medium	High	Fuel-like
Comments:	<p> </p> <p> </p> <p> </p> <p> </p>				



МУНИ

MONITORING WELL SAMPLING LOG

Page 1 of 1

All measurements taken from: Top of Casing Protective Casing Ground Level Sample ID MW-07-W6
 Well Number MW-69 Static Water Level (ft) 125.70
 Date 4/11/06 Depth to Product (ft) N
 Time Start: 1425 End: 1502 Total Well Depth (ft) 180
 Client: AFCEE Standing Water Column (ft) 14.3
 Project: George AFB Basewide Groundwater Monitoring Purging Method: Modified Micropurge
 Sampler(s): MUNSON - ELLIS Purging Equipment: Grundfos Rediflow
 Well Diameter: 48" Borehole Diameter: 12" Water Level Equipment: SOLinst
 Screen Interval: 120' - 140' Field Parameter Meter: HERIBA 61-10
 Pump Depth (ft): 138.0 130.7 ORP Meter: HANNA

FIELD PARAMETERS MEASURED

FIELD SCREENING ANALYSIS

Parameter	Method/Instrument	Measurement 1	Measurement 2	Average Measurement	Date/Time	Sampler
H ₂ S				*		
Fe ²⁺				†		

OBSERVATIONS OF GROUNDWATER SAMPLES

Color: Clear Other (describe):

Order: None Low Medium High Fuel-like Other (describe):

Comments:-



FIELD REPORT

0815 Arrived
at W2-06
0845 Started well
Purge at 1.46 gpm
Well purge 756A1
or until well
pumps dry

0935 pumped 75 gal
Reset pump to 1.21
and restarted
purge at normal
purge rate

Date:	4/12/06	Job No.:	1951048
Project:	LT GWR		
Location:	BTEB		
Weather:	Clear-Cool		
Present at Site:	MUNSON - ELLIS		
Calibration Fluid Manufacturer and Lot#:	4974		
AutoCal Exp.:	07-05-07		
	Actual	Beginning	Ending
	Value	Calibration	Calibration
Calibration Time:	-	6740	1530
pH (SU)	4.0	3.95	3.99
EC (mS/cm)	46.49	4.52	4.48
Turbidity (NTU)	0	0	0
Dissolved Oxygen (mg/L)	1139		8.90

1015 Collected sample - Start decom

1115 Decom Complete - Report W2-06

1230 Arrived at W2-06 - Started decom

1435 Decom Complete lowered pump to 142.30

1445 Started well purge

1515 Collect Sample - Start decom

PAGE 1 OF 1

PREPARED BY: Emerson

1340 Treat Blvd. Ste. 300
Walnut Creek, CA 94597

Phone: 925-975-3400
Fax: 925-975-3412

MAR-10-1990 18:45

P.05/05



MONTGOMERY WATSON HARZI

MONITORING WELL SAMPLING LOG

Page 1 of

All measurements taken from: Top of Casing Protective Casing Ground Level Sample ID WZ-06-WG

Well Number WZ-06
Date 4/12/06
Time Start: 0845 End: 1015
Client AFCCE
Project George AFB Basewide Groundwater Monitoring
Sampler(s) MUNSEN - ELLIS
Well Diameter 45" Borehole Diameter 8"
Screen Interval 113.8' - 133.0'
Pump Depth (ft) 132.0 / 123
Purging Method Modified Micropurge
Purging Equipment 2' Grundfos Redflow
Water Level Equipment S&L INSTR
Field Parameter Meter HORIBA U-10
ORP Meter HANNA

FIELD PARAMETERS MEASURED

TIME	AMOUNT PURGED (gallons)	Purge Rate (gpm)	5%	1%	5%	10% or <10	5%	10%	Water Level (ft)
			EC (mS/cm)	pH	Temp (°C)	Turbidity (NTU)	ORP (mv)	DO (mg/L)	
0845					1.46pm				113.35
0855	20.0	1.47	592	7.06	23.1	32	228	2.48	115.87
0910	32.5	1.45	583	7.83	23.7	20	221	2.36	115.65
0930	57.7	1.46	584	7.95	23.9	17	227	2.16	116.02
0935	74.66	1.46	585	7.93	24.0	20	228	2.14	116.15
0950									
0955	1.50	.23	584	8.03	22.8	12	142	3.18	114.02
1002	2.85	.21	586	8.00	22.6	14	150	2.39	113.92
1005	3.87	.22	582	7.99	23.4	14	192	2.19	113.92
1010	4.35	.22	584	7.98	23.6	14	192	2.16	113.92
1015									

FIELD SCREENING ANALYSIS

Parameter	Method/Instrument	Measurement 1	Measurement 2	Average Measurement	Date/Time	Sampler
H ₂ S						
Fe ²⁺						

OBSERVATIONS OF GROUNDWATER SAMPLES

Color:	Clear	Other (describe):
Odor:	None	Low Medium High Fuel-like Other (describe):
Comments:	Purges placed one foot from bottom of well	

12-01-GAFB

TOTAL P.05

MAR-10-1980 18:45

P.04/05



MONITORING WELL SAMPLING LOG

Page 1 of 1

All measurements taken from: Top of Casing Protective Casing Ground Level Sample ID _____

Well Number MW-49

Date 4/12/06

Time Start: 1445 End: 1515

Client AFCCE

Project Georgia AFS Basewide Groundwater Monitoring

Sampler(s) 2m U.P. 30A - ELLS

Well Diameter 4" Borehole Diameter 10"

Screen Interval 120-160

Pump Depth (ft) 142.30'

Static Water Level (ft) 137.36

Depth to Product (ft) N/A

Total Well Depth (ft) 160.0'

Standing Water Column (ft) 22.7'

Purging Method Modified Microburst

Purging Equipment Groundflow Redflow

Water Level Equipment SOLINST

Field Parameter Meter HORIBA 61-16

ORP Meter HANNA

FIELD PARAMETERS MEASURED

FIELD SCREENING ANALYSIS

Parameter	Method/Instrument	Measurement 1	Measurement 2	Average Measurement	Date/Time	Sampler
Hg						
Fu ⁺						

OBSERVATIONS OF GROUNDWATER SAMPLES

Coton Clear Other (describe):

Odor: None Low Medium High Foul-Humid Other (describe):

Сентябрь

05-03 0050



**GEORGE AIR FORCE BASE
SAN BERNARDINO COUNTY, CALIFORNIA
MONITORING WELL SAMPLING LOG**

FIGURE.

Chain-of Custody Records

00905063-5997/34500/Field Audit4_10_06Final



USEPA Contract Laboratory Program
Generic Chain of Custody

Reference Case: 35220

Client No:

R

Region:	9	Date Shipped:	4/12/2006	Chain of Custody Record	Sampler Signature
Project Code:		Carrier Name:	FedEx		
Account Code:		Airbill:	8451 9856 9820		
CERCLIS ID:	CA2570024453	Shipped to:	EPA Region 9 Laboratory 1337 South 48th Street, Building 201 Richmond CA 94804 (510) 412-2377		
Spill ID:	Q7				
Site Name/State:	George Air Force Base/CA				
Project Leader:	Greg Nagle				
Action:	Combined RI/FS				
Sampling Co:	EPA Region 9 Laboratory				

SAMPLE No.	MATRIX SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No/ PRESERVATIVE/ Bottles	STATION LOCATION	SAMPLE COLLECT DATE/TIME	CC Type
Y2FX6	Ground Water/ Greg Nagle	L/G	ALK & NO3 (21)	151 (Ice Only) (1)	MW-200	S: 4/12/2006 14:00	PE
Y2FX7	Ground Water/ Greg Nagle	L/G	ALK & NO3 (21), TOC (21)	130 (HCl), 131 (HCl), 136 (Ice Only), 137 (Ice Only), 138 (Ice Only) (5)	WZ-06	S: 4/12/2006 10:15	-

Shipment for Case Complete? N	Sample(s) to be used for laboratory QC: Y2FX7	Additional Sampler Signature(s):	Chain of Custody Seal Number:
Analytic Key: ALK & NO3 = Alkalinity & Nitrate, TOC = Total Organic Carbon	Concentration: L = Low, M = Low/Medium, H = High	Type Designate: Composite = C, Grab = G	Shipment Iced?

TR Number: 9-265062414-041206-0002

PR provides preliminary results. Requests for preliminary results will increase analytical costs.

Send Copy to: Sample Management Office, Attn: Heather Bauer, CSC, 15000 Conference Center Dr., Chantilly, VA 20151-3819; Phone 703/818-4200; Fax: 703/818-4201

REGION COPY

F2V5.1.047 Page 1 of 1

00905063-5997/34500/Field Audit4_10_06Final



USEPA Contract Laboratory Program
Organic Traffic Report & Chain of Custody Record

Case No: 35220
DAS No:

R

Region: 9	Date Shipped: 4/10/2006	Chain of Custody Record	
Project Code:	Carrier Name: FedEx	Sampler Signature:	
Account Code:	Airbit: 6451-9856-9771	Relinquished By (Date / Time)	Received By (Date / Time)
CERCLIS ID: CA2570024453	Shipped to: A4 Scientific 1544 Sawdust Road Suite 505 The Woodlands TX 77380 (281) 292-5277	1	
Spill ID: Q7		2	
Site Name/State: George Air Force Base/CA		3	
Project Leader: Greg Nagle		4	
Action: Combined RI/FS			
Sampling Co: EPA Region 9 Laboratory			

ORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC TYPE	ANALYSIS/ TURNAROUND	TAG No/ PRESERVATIVE Bottles	STATION LOCATION	SAMPLE COLLECT DATE/TIME	INORGANIC SAMPLE No.	QC Type
Y2FX1	Ground Water/ Greg Nagle	L/G	VOA (21)	112 (HCL), 113 (HCL), 114 (HCL), 115 (HCL), 116 (HCL), 117 (HCL), 118 (HCL), 119 (HCL), 120 (HCL) (9)	NZ-107	S: 4/10/2006 11:15		

Shipment for Case Complete? N	Sample(s) to be used for laboratory QC:- Y2FX1	Additional Sampler Signature(s):	Chain of Custody Seal Number:
Analysis Key: VOA = CLP TCL Volatiles	Concentration: L = Low, M = Low/Medium, H = High	Type/Designate: Composite = C, Grab = G	Shipment Isad? _____

TR Number: 9-265062414-041006-0001

PR provides preliminary results. Requests for preliminary results will increase analytical costs.

Send Copy to: Sample Management Office, Attn: Heather Bauer, CSC, 15000 Conference Center Dr., Chantilly, VA 20151-3819; Phone 703/818-4200; Fax 703/818-4200

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00905063-5997/34500/Field Audit4_10_06Final



USEPA Contract Laboratory Program
Generic Chain of Custody

Reference Case: 35220

Client No:

R

Region: 9	Date Shipped: 4/10/2006	Chain of Custody Record		Sampler Signature:			
Project Code:	Carrier Name: FedEx	Relinquished By	(Date / Time)	Received By			
Account Code:	Airbill: 8451-4855-9762	1					
CERCLIS ID: CA2570024453	Shipped to: EPA Region 9 Laboratory 1337 South 49th Street, Building 201 Richmond CA 94804 (510) 412-2377	2					
Spill ID: Q7		3					
Site Name/State: George Air Force Base/CA		4					
Project Leader: Greg Nagle							
Action: Combined RI/FS							
Sampling Co: EPA Region 9 Laboratory							
SAMPLE No.	MATRIX/ SAMPLER	COND/ TYPE	ANALYSIS TURNAROUND	TAG No/ PRESERVATIVE Bottles	STATION LOCATION	SAMPLE COLLECT DATE/TIME	QC Type
Y2FX1	Ground Water/ Greg Nagle	L/G	Anions & T (21)	121 (Ice Only), 122 (Ice Only), 123 (Ice Only) (3)	NZ-107	S: 4/10/2006 11:15	1

Shipment for Case Complete? N	Sample(s) to be used for laboratory QC: Y2FX1	Additional Sampler Signature(s):	Chain of Custody Seal Number:
Analysis Key: Anions & T = Anions & TDS	Concentration: L = Low, M = Low/Medium, H = High	Type Designator: Composite = C, Grab = G	Shipment Iced?

TR Number: 9-265062414-041006-0002

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00905063-5997/34500/Field Audit4_10_06Final



USEPA Contract Laboratory Program
Organic Traffic Report & Chain of Custody Record

Case No: 35220
DAS No:

R

Region: 9	Date Shipped: 4/11/2006	Chain of Custody Record	
Project Code:	Carrier Name: FedEx	Sampler Signature:	
Account Code:	Airbill: 8415 9856 9830	Relinquished By	(Date / Time)
CERCLIS ID: GA2570024453	Shipped to: A4 Scientific 1544 Sawdust Road Suite 505 The Woodlands TX 77380 (281) 292-5277	Received By	(Date / Time)
Spill ID: Q7		1	
Site Name/State: George Air Force Base/CA		2	
Project Leader: Greg Nagle		3	
Action: Combined RT/FS		4	
Sampling Co: EPA Region 9 Laboratory			

ORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS TURNAROUND	TAG No./ PRESERVATIVE/ Bottles	STATION LOCATION	SAMPLE COLLECT DATE/TIME	INORGANIC SAMPLE No.	QC Type
Y2FW8	Ground Water/ Greg Nagle	L/G	VOA (21)	103 (HCL), 104 (HCL), 105 (HCL) (3)	FT-03	S: 4/11/2006 8:50		-
Y2FW9	Ground Water/ Greg Nagle	L/G	VOA (21)	106 (HCL), 107 (HCL), 108 (HCL) (3)	MW-69	S: 4/12/2006 15:00		-
Y2FX2	Ground Water/ Greg Nagle	L/G	PEST (21)	124 (Ice Only), 125 (Ice Only), 126 (Ice Only), 127 (Ice Only), 128 (Ice Only), 129 (Ice Only) (6)	NZ-69	S: 4/11/2006 11:10		-
Y2FX4	Field QC/ Greg Nagle	L/G	VOA (21)	145 (HCL), 146 (HCL), 147 (HCL) (3)	04112006TB	S: 4/11/2006 15:15		Trip Blank

Shipment for Case Complete? N	Sample(s) to be used for laboratory QC: Y2FX2	Additional Sampler Signature(s):	Chain of Custody Seal Number:
Analysis Key: PEST = CLP TCL Pesticide/PCBs; VOA = CLP TCL Volatiles	Concentration: L = Low, M = Low/Medium, H = High	Type/Designate: Composite = C, Grab = G	Shipment Iced?

TR Number: 9-265062414-041006-0003

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USEPA Contract Laboratory Program
Organic Traffic Report & Chain of Custody Record

Case No: 35220
DAS No:

R

Region: 9	Project Code:	Date Shipped: 4/10/2006	Chain of Custody Record		Sampler Signature:			
Account Code:	Carrier Name: FedEx	Relinquished By (Date / Time)	Received By (Date / Time)					
GERCIS ID: CA2570024453	Airbill: 8451 9856 9771	1						
Spill ID: Q7	Shipped to: A4 Scientific 1544 Sawdust Road Suite 505 The Woodlands TX 77380 (281) 292-5277	2						
Site Name/State: George Air Force Base/CA		3						
Project Leader: Greg Nagle		4						
Action: Combined R/F/S								
Sampling Co: EPA Region 9 Laboratory								
ORGANIC SAMPLE No.	MATRIX SAMPLER	CONC TYPE	ANALYSIS/ TURNAROUND	TAG No/ PRESERVATIVE/ Bottles	STATION LOCATION	SAMPLE COLLECT DATE/TIME	INORGANIC SAMPLE No.	QC Type
Y2PX3	Field QC/ Greg Nagle	L/G	VOA (21)	142 (HCL), 143 (HCL), 144 (HCL) (3)	04102006TB	S: 4/10/2006 13:30	Trip Blank	

Shipment for Case Complete? N	Sample(s) to be used for laboratory QC:	Additional Sampler Signature(s):	Chain of Custody Seal Number:
Analysis Key: VOA = CLP TCL Volatiles	Concentration: L = Low, M = Low/Medium, H = High	Type/Designate: Composite = C, Grab = G	Shipment Iced?

TR Number: 9-265062414-041106-0002

PR provides preliminary results. Requests for preliminary results will increase analytical costs.

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USEPA Contract Laboratory Program
Organic Traffic Report & Chain of Custody Record

Case No: 35220
DAS No:

R

Region:	9	Date Shipped:	4/12/2006	Chain of Custody Record		Sampler Signature:
Project Code:		Carrier Name:	FedEx			
Account Code:		Airbill:	8451 9856 9808			
CERCLIS ID:	CA2570024453	Shipped to:	A4 Scientific 1544 Sawdust Road Suite 505 The Woodlands TX 77380 (281) 292-5277			
Spill ID:	Q7					
Site Name/State:	George Air Force Base/CA					
Project Leader:	Greg Nagle					
Action:	Combined R/FS					
Sampling Co:	EPA Region 9 Laboratory					

ORGANIC SAMPLE No.	MATRIX / SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No/ PRESERVATIVE Bottles	STATION LOCATION	SAMPLE COLLECT DATE/TIME	INORGANIC SAMPLE No.	QC Type
Y2FW7	Ground Water/ Greg Nagle	M/G	VOA (21)	100 (HCL), 101 (HCL), 102 (HCL) (3)	NZ-27	S: 4/12/2006 12:25		
Y2FX0	Ground Water/ Greg Nagle	M/G	VOA (21)	109 (HCL), 110 (HCL), 111 (HCL) (3)	MW-49	S: 4/12/2006 15:15		
Y2FX5	Field QC/ Greg Nagle	L/G	VOA (21)	148 (HCL), 149 (HCL), 150 (HCL) (3)	04122006TB	S: 4/12/2006 15:00		Trip Blank
Y2FX6	Ground Water/ Greg Nagle	L/G	VOA (21)	155 (HCL), 156 (HCL), 157 (HCL) (3)	MW-200	S: 4/12/2006 14:00		PE
Y2FX7	Ground Water/ Greg Nagle	L/G	VOA (21)	139 (HCL), 140 (HCL), 141 (HCL) (3)	WZ-06	S: 4/12/2006 10:15		

Shipment for Case Complete? N	Samples(s) to be used for laboratory QC:	Additional Sampler Signature(s):	Chain of Custody Seal Number:
Analysis Key: VOA = CLP; TCL Volatiles	Concentration: L = Low, M = Low/Medium, H = High VOA = CLP; TCL Volatiles	Type/Designate: Composite = C, Grab = G	Shipment Iced?

TR Number: 9-265062414-041106-0003

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